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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,311	07/11/2001	Kemal Guler	10014420	2098

7590 03/02/2007
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

BASHORE, ALAIN L

ART UNIT	PAPER NUMBER
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1762

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/904,311

Applicant(s)

GULER ET AL.

Examiner

Alain L. Bashore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Board Decision


1. In view of the Board Decision filed on 2-23-07, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

2. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 25, 29, and 33, 41, 45, 46, 47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "type" is considered vague and indefinite.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 22-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter in view of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (1300 Off Gaz. Pat. Office 142 (Nov. 22, 2005)). The claims are not directed to a practical application of an abstract idea (i.e., that they do not transform physical subject matter to a different state or thing nor produce a useful, concrete, tangible result).

The guidelines first require a determination as to whether the claims as a whole are directed to nothing more than abstract ideas, natural phenomena, or laws of nature. If the claims are found to be directed to more than abstract ideas, then the second step set forth in the guidelines is to determine whether the claimed invention is directed to a practical application of an abstract idea, law of nature, or natural phenomenon. The useful, concrete, and tangible result test set forth in *State Street Bank & Trust Co. v. Signature Finance Group, Inc.*, 149 F.3d 1368, 1373; 47 USPQ2d 1596, 1601 (Fed. Cir. 1998), in the context of a machine implemented process, and would, therefore, apply to the present claims.

Regarding the first step, none of the claims recites a natural phenomena nor a law of nature, so the issue is whether they are directed to an abstract idea. The present claims are machine-implemented. However, the question (even for the claims which recite a computer system, such as claim 26, or a storage medium, such as claim 30) is whether the claims as a whole are nothing more than abstract ideas.

Regarding the second step, the claims involve neither a law of nature nor natural phenomenon, so the issue is whether they are directed to a practical application of an abstract idea. The guidelines indicate that either a transformation of physical subject matter to a different state or thing or the production of a useful, concrete, and tangible result equates to a practical application of an abstract idea. The subject matter transformed may be tangible (matter) or intangible (some form of energy, such as the

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conversion of electrical signals or the conversion of heat into other forms of energy (thermodynamics)), but it must be physical.

In claims 22, the steps of accessing data from memory, determining private information from the data, and determining risk attitudes from the data are considered abstract ideas. The determination of private information from the accessed data appears to be a sort of calculation with no specificity as to how the determination is made. The determination of risk attitudes is substantially the establishment of a mental state. There is no transformation of physical subject matter to a different state or thing, nor do we find a production of a useful, concrete, and tangible result. Claim 22 merely manipulates data to obtain another form of data, "private information," and also calculates "risk attitudes," which is substantially a mental state. Neither step transforms physical subject matter, to a different state or thing. Further, neither result seems to be a concrete and tangible result.

In claim 26, the steps of storage of auction data, determining private information, determining risk attitudes, and bidding behavior are all considered abstract ideas. The steps do not transform physical subject matter, to a different state or thing. Further, neither do the steps result seems to be a concrete and tangible result.

In claim 30, there is recited a storage medium including instructions that perform the steps of retrieving data, estimating private information based on the data, and estimating risk attitudes based on the data. Estimating private information again appears to be a mathematical function, and estimating risk attitudes is substantially the

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determination of a mental state. The steps do not transform physical subject matter, to a different state or thing. Further, neither do the steps result seems to be a concrete and tangible result.

In claim 34, a "historical action database" comprising data as recited, "determining market structure" as recited are both considered be a mathematical function, and estimating risk attitudes is substantially the determination of a mental state. The steps do not transform physical subject matter, to a different state or thing. Further, neither do the steps result seems to be a concrete and tangible result.

In claim 37, a "bidding model database comprising auction models", predicting bidding behavior", "an auction decision candidate and constraints", "selecting a bidding model", "predict the bidding behavior" are all considered be a mathematical function, and "risk attitudes" is substantially the determination of a mental state. The steps do not transform physical subject matter, to a different state or thing. Further, neither do the steps result seems to be a concrete and tangible result.

In claim 39, the steps of determining private information from the data, and determining risk attitudes from the data are considered abstract ideas. The determination of private information from the accessed data appears to be a sort of calculation with no specificity as to how the determination is made. The determination of risk attitudes is substantially the establishment of a mental state. There is no transformation of physical subject matter to a different state or thing, nor do we find a production of a useful, concrete, and tangible result. Claim 22 merely manipulates data to obtain another form of data, "private information," and also calculates "risk

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attitudes,” which is substantially a mental state. Neither step transforms physical subject matter, to a different state or thing. Further, neither result seems to be a concrete and tangible result.

In claim 42, “accessing utility-independent auction data and utility-dependant auction data appear to be abstract ideas without transformation of physical subject matter to a different state or thing, nor do we find a production of a useful, concrete, and tangible result. The “determination of a joint distribution”, and “determine a utility of wealth function” are also the manipulation of mathematical ideas without a production of a useful, concrete, and tangible result.

In claims 23-25, 27-29, 31-33, 35-36, 38, 40-41, 43-47 the steps of “statistical density estimation techniques to non-parametrically estimate a joint distribution of private information”, “using quantile matching to non-parametrically estimate the risk attitudes”, “herein the utility-independent auctions and the utility-dependant auctions further comprise auction for the same type of auction” are all considered a calculation without specificity. The steps do not transform physical subject matter, to a different state or thing. Further, neither do the step results seems to be a concrete and tangible result.

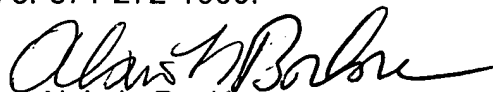
Therefore, claims 22- 47 appear to be nothing more than abstract ideas, and, therefore, are excluded from patent protection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Alain L. Bashore
Primary Examiner
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